## REMARKS

### I. Introduction

Claims 2-19 are pending in this application. Based on the following remarks, Applicants respectfully request reconsideration and allowance of the pending claims. A Response to the October 7, 2005 Office Action and a Notice of Appeal was filed by Applicants on February 23, 2006. The Examiner entered the February 23, 2006 Response as indicated in a March 7, 2006 Advisory Action. This Supplemental Response further responds to the October 7, 2005 Action and the Examiner's reasoning set forth in the March 7, 2006 Advisory Action.

### II. 35 U.S.C. § 103 Rejections

The Action rejects claims 2-4, 7, 13, and 16-19 under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent No. 5,595,066 to *Zwanikken et al.* Applicants respectfully traverse these rejections and request reconsideration and withdrawal thereof.

The Action admits that *Zwanikken et al.* does not expressly or impliedly suggest conveying slaughtered birds or parts thereof in different horizontal planes, as recited in claims 2 and 16. Rather, providing no evidence or other support, the Action conclusively maintains that it would be obvious to rearrange the conveyor paths in *Zwanikken et al.* (which travel in a single plane) to travel in multiple horizontal planes so as to optimize space. The February 23, 2006 Response explained why such a conclusion is incorrect:

> [O]ne of skill in the art would understand, upon a reading of *Zwanikken et al.*, that such an adaptation would result in contamination of the birds – an unsuccessful (indeed unacceptable) result in the poultry processing industry.
>
> *Zwanikken et al.* discloses that the birds are sprayed and subsequently cooled for a period of three quarters of an hour in the first cool step. Column 2, lines 27-39. If the birds are to be kept wet for such a time period, a substantial amount of water must be sprayed on the birds. Excess water will naturally drip from the birds. Such dripping is fine if the birds are all traveling in the same horizontal plane because the excess water will simply drip onto the processing plant floor. However, if the birds were traveling in different horizontal planes (as recited in claims 2 and 16), water from birds traveling in higher horizontal planes will drip on birds traveling in lower horizontal planes. This dripping results in contamination of the birds, rendering the contaminated birds inedible. Thus, the device of *Zwanikken et al.* is simply not suitable for conveying birds at different horizontal levels. One of ordinary skill in the art would therefore not be motivated to modify the teaching of the *Zwanikken et al.* reference in this way and certainly not expect successful results upon such a modification.

February 23, 2006 Response to Office Action, Part II.

A March 7, 2006 Advisory Action entered Applicants' February 23, 2006 Response. However, the Advisory Action failed entirely to address Applicants' arguments set forth in that Response relating to the problem of cross-contamination should the *Zwanikken et al.* system be modified to convey the birds in different horizontal planes. Rather, the March 7, 2006 Advisory Action simply maintains:

> Zwanikken teaches that it was well established to use parallel conveyor paths for the purpose of optimizing space. It is not seen how organizing these parallel paths in a vertical direction, as claimed, as opposed to a horizontal direction, as taught by the prior art, would create an unexpected result or be anything other than an obvious modification due to the shape and size of the facility.

Applicants again must respectfully disagree. To begin, contrary to the Advisory Action's assertion, absolutely nothing in *Zwanikken et al.* is directed to nor even suggests that *Zwanikken et al.* is at all concerned with optimizing space. Thus, *Zwanikken et al.* does not suggest to one

of skill in the art that any modification is needed to alleviate space concerns and thus itself does not provide any motivation for doing so.

Moreover, even assuming, *arguendo*, one of skill in the art were motivated by space concerns, he would not modify the *Zwanikken et al.* reference to provide conveyors running in different horizontal planes at least because providing conveyors in different horizontal planes in the *Zwanikken et al.* system: (1) would lead to cross-contamination of the birds; (2) would jeopardize the effectiveness of the system which is dependent on strict temperature control of the birds; and (3) would depart from the otherwise linear nature of the processing line.

The risk of cross-contamination of the birds by organizing paths in different horizontal planes was discussed in Applicants' February 23, 2006 Response, the entirety of which is herein incorporated by reference. In short, *Zwanikken et al.* teaches spraying the birds to such an extent that they will remain wet for at least forty-five minutes. This requires use of a substantial amount of water. If *Zwanikken et al.* were modified to provide for conveyance of birds in different horizontal planes, the water from birds conveyed in higher horizontal planes would drip onto birds conveyed in lower horizontal planes, leading to transmittal of micro-organisms to, and consequent contamination of, the birds in the lower planes. A primary goal of the *Zwanikken et al.* cooling system is to reduce the number of micro-organisms in the meat. *See, e.g.*, col. 1, lines 47-48 and lines 59-62; col. 2, lines 54-59. Thus, the risk of cross-contamination between the birds would dissuade one of skill in the art from modifying *Zwanikken et al.* in such a way that would lead to such an undesirable result. In contrast and as discussed in more detail below, Applicants developed a system that moistens the birds via atomization of water and thereby substantially overcomes the drip problem, and consequent cross-contamination, problem that

historically has precluded as a viable option the conveyance of birds in different horizontal planes.

Moreover, *Zwanikken et al.* is directed to strictly regulating the temperature of the birds being cooled. *Zwanikken et al.* teaches that temperature control is important to attain good meat quality and to prevent development of micro-organisms. *See, e.g.*, col. 1, lines 44-49. *Zwanikken et al.* is replete with specifications for the precise temperatures that the meat should attain in its cooling operations to optimize meat quality. *See, e.g.*, col. 2, lines 29-30, 40-42, 57-58, 64-65.

However, the precise temperature regulation of the meat as taught by *Zwanikken et al.* would be difficult to attain if the birds were conveyed in different horizontal planes. It is known that warm air and cold air have different densities. Due to this difference in densities of the warm and cold air, warm air tends to rise and cold air tends to drop. This phenomenon finds no exception in cooling rooms. Rather, in cooling rooms, a temperature gradient likewise occurs in the vertical direction. Thus, the birds traveling through the cooling room will encounter and be subjected to different temperatures depending on the vertical location of the plane in which is it being conveyed, thereby thwarting the ability to precisely control the temperature of the birds and attain consistency of such temperatures.

A person skilled in the art trying to obtain a specific temperature control as taught by *Zwanikken et al.* would thus not consider modifying the cooling room of *Zwanikken et al.* to convey birds in horizontal planes located at different vertical levels in the cooling room. Rather, the objective of specific temperature control as taught in *Zwanikken et al.* would prompt one of skill in the art to exclude any arrangement except one that conveys the birds in a single horizontal plane, such as is taught by *Zwanikken et al.*

Furthermore, *Zwanikken et al.* teaches the incorporation of a cooling room in a slaughterhouse. Prior to entry into the cooling room, the birds undergo a hanging step 1, a stunning step 2, a killing step 3, a bleeding step 4, a scalding step 5, a plucking step 6, an opening step 7, and an evisceration step 8. *See* Figure 1 and col. 3, lines 53 to col. 4, line 1. Performance of all of these processing operations that occur prior to entry of the birds into the cooling room require visual accessibility by an operator in order to monitor and/or control the process or to remove a bird that is not processed correctly. Therefore, the birds are typically conveyed through these processing stations in a single horizontal plane so as to be easily accessible to a human operator.

*Zwanikken et al.* discloses a cooling room that is in conformance with this typical practice. The birds are conveyed through the cooling room in a single horizontal plane. To do otherwise, such as is recited in claims 2 and 16 whereby the birds are conveyed in different horizontal planes, is to depart from convention and invite additional headache and expense. Modifying conveyance through the cooling room in *Zwanikken et al.* to provide for conveyance in different horizontal planes (as the Action maintains would be obvious to do) would require significant reworking of and modification to the *Zwanikken et al.* system, not only of the cooling room and the conveyor but also of the spray stations arranged along the path of the conveyor. To spray birds at different horizontal levels, the spray stations must also be positioned at different levels or be adapted to be able to spray at different heights. Such an adaptation would result in significant additional expense. Thus, one of skill in the art would be dis-incentivized – not motivated – to modify *Zwanikken et al.* in this way.

At least for these reasons and contrary to the Action's assertions, one of skill in the art would not be motivated to adapt, or indeed have any reasonable expectation of success upon

adaptation of, the teachings of *Zwanikken et al.* to incorporate conveyance of birds in different horizontal planes, as recited in claims 2 and 16. Claims 2 and 16 are allowable, as are claims 3, 4, 7, and 13 and claims 17-19 that respectively depend from claims 2 and 16.

Furthermore, Applicants' device and method uses atomization of water to apply a film to the skin of the bird. Claim 2 recites the step of "moistening at least a portion of each slaughtered bird or part thereof ***by atomization of water*** [to] apply[] a water film to the skin of the slaughtered bird or part thereof." Claim 16 similarly recites a device having "a spray means for moistening the skin of each slaughtered bird or part thereof ***by atomization of water*** . . . to apply a water film to cover substantially the entirety of the skin of a slaughtered bird or part thereof." Moistening via atomization of water entails applying minute particles or a fine mist of water to the bird. The application teaches moistening by atomization of water so as to apply a thin film of water to the bird to reduce the amount of water used and to reduce water dripping from the birds. Page 4, lines 8-20; page 5, lines 12-19 and line 21; page 6, lines 36-38; page 14, lines 9-11 and lines 21-26. Avoidance of drip thereby allows organization of the conveyor paths in different horizontal planes, as recited in claims 2 and 16.

*Zwanikken et al.* fails to teach or suggest applying water to birds via atomization of water. Rather, it broadly recites spraying the birds with water (*see, e.g.*, col. 4, lines 3, 6, 7, claim 1), yet provides no teaching of how the birds are sprayed, the devices used to spray the birds, or the resulting arrangement of water on the bird. This lack of teaching is not surprising given that drip (or the avoidance thereof) is irrelevant in the *Zwanikken et al.* system. Because the conveyor paths are arranged in a single plane, drip is of no concern. Thus, no motivation exists for one of skill in the art to adapt the *Zwanikken et al.* system to provide for moistening of the birds via atomization and thereby fix a problem that does not even exist.

Because *Zwanikken et al.* fails to teach or suggest applying a film of water to the birds via atomization of water, it fails for this additional reason to render obvious claims 2 and 16. These claims, as well as claims 3, 4, 7, and 13 and claims 17-19 that respectively depend from claims 2 and 16, are allowable for this additional reason.

The Action rejects claims 8, 9, 11, 12, 14, and 15 under 35 U.S.C. 103(a) as being unpatentable over *Zwanikken et al.* in view of U.S. Patent No. 4,199,958 to Masuda et al., claims 5 and 6 under 35 U.S.C. 103(a) as being unpatentable over *Zwanikken et al.* in view of U.S. Patent No. 6,103, 286 to Gutzman, et al., and claim 10 under 35 U.S.C. 103(a) as being unpatentable over *Zwanikken et al.* in view of U.S. Patent No. 4,196,221 to Dew. Applicants respectfully traverse these rejections and request reconsideration and withdrawal thereof. Claims 5, 6, 8, 9-12, 14, and 15 are allowable at least by virtue of their dependency from allowable claim 2.

## CONCLUSION

Applicants believe that this application is in condition for allowance. Such action is respectfully requested.

If the Examiner believes any informalities remain in the application that may be corrected by Examiner's Amendment, or there are any other issues that can be resolved by telephone interview, a telephone call to the undersigned attorney at (404) 815-6389 is respectfully solicited.

Respectfully submitted,

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